

## **Botulinum toxin**

### **What is botulinum toxin and how does it work?**

Botulinum toxin is a naturally occurring protein made by the bacterium called clostridium botulinum. In appropriate dose and in expert hands it is an effective and relatively safe drug to treat many medical conditions. It is injected to the particular muscle or the gland based on the various indications where the nerve endings will take up the toxin and blocks the connection between nerve-muscle or nerve-gland. This helps in reducing the excessive unwanted activity of the muscle or the gland and giving relief to the patient.

### **What are the various indications in movement disorders?**

We offer Botulinum toxin therapy for various indications in movement disorders such as

- Dystonia: Blepharospasm (Excessive eye blinking), cervical (neck) dystonia, oromandibular (mouth and jaw) dystonia, lingual (tongue) dystonia, laryngeal (vocal cord) dystonia or spasmodic dysphonia, writer's cramp and other task specific dystonia, foot dystonia and other focal dystonia
- Hemifacial spasm (abnormal twitching on one side of the face)
- Other indications such as sialorrhea (abnormal drooling), tremor, spasticity, tics in selected cases.

There are different ways the injection can be given.

- In certain indications such as blepharospasm, hemifacial spasm, lingual dystonia the injection is given directly without electromyography (EMG) or ultrasound (USG) guidance.
- In certain conditions such as writer's cramp, oromandibular dystonia, complicated cervical dystonia, spasmodic dysphonia, spasticity the injection will be given either
  - EMG guided using special EMG needle and/or
  - USG guided.

### **What are the various types of botulinum toxins available?**

We use three types of botulinum toxins as per the clinical indications and the response to various formulations.

1. Onabotulinum toxin A – BOTOX®
2. Abobotulinum toxin A – DYSPORT®
3. Incobotulinum toXin A – XEOMIN®

### **What are the various charges for the botulinum toxin therapy?**

The injections are procured from outside and not available in the hospital supply and has to be purchased by the patient themselves. We will provide the details of a medical vendor for the convenience of the patient. However, the patients are free to purchase the prescribed formulation and dose of botulinum toxin injection from any legal medical vendor of their choice.

**What advice to follow on the day of Botulinum toxin injection?**

The patient has to be present at the clinic by the time he/she was advised. The patient can have food and usual morning dose of medication before coming for botulinum toxin clinic as there is no need to fast or skip medication. The injection procedure takes around 5-10 minutes per person. The patient will be injected appropriate dose of botulinum toxin into the selected muscles at multiple sites using a very thin (23G-26G) needle. The dose and the site of injection will be decided by the treating movement disorder specialist. The patient can leave after 10-15 minutes after their injection and carry on his/her daily activities as usual. There is no need to be admitted. The precautions if any will be advised by the movement disorder specialist on the day of injection based on your ailment. The side effects profile may vary based on the disease and you can ask the treating movement disorder specialist regarding the same on the day of your consultation.

**What to expect after the injection session?**

It may take around 1 week for the injection effect to start and may take up to 2-3 weeks for maximum effect. The effect usually lasts around 3 months and may vary from 2-6 months between patients. The expected improvement may vary depending upon the ailment and the dose given. You may have mild pain at the site of injection for which the movement disorder specialist will prescribe analgesic if needed. The treating movement disorder specialist will brief you regarding the side effects profile that can be expected.